

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 – 17. (Cancelled).

18. (Currently Amended) A digital radio communication system comprising:
means for transmitting, on a transmitting side, ~~a block consisting of a plurality of known~~
pilot symbols at every slot, a predetermined number of said slots forming a frame;
means for receiving, on a receiving side, ~~said blocks each consisting of said~~ known pilot
symbols; and
means for carrying out coherent detection using the received ~~blocks;~~ known pilot
symbols,
wherein ~~said block consisting of~~ said known pilot symbols of each slot consists of a
known pilot symbol portion and a sync word portion for frame alignment, the known pilot
symbol portion and the sync word portion in each slot being aligned consecutively, and {;}
wherein said means for carrying out coherent detection carries out the coherent detection
using said known pilot symbol portion, and employs, after establishing the frame alignment
using said sync word portion, said sync word portion for the coherent detection.

19. (Currently Amended) The digital radio communication system as claimed in
claim 18, wherein said known pilot symbols of each slot comprise multiple known pilot symbol
portions and multiple sync word portions aligned consecutively, and wherein said known pilot
symbol portions and said sync word portions are transmitted alternately in said block each slot.

20. (Previously Presented) A radio communication system that carries out
radio communications between a base station and a mobile station on a mobile communication
network using the digital radio communication system as claimed in claim 18.

21. (Currently Amended) A receiver for a digital radio communication system comprising:

means for receiving ~~a block consisting of a plurality of~~ known pilot symbols, which ~~has~~ have been transmitted at every slot, a predetermined number of said slots forming a frame; and

means for carrying out coherent detection using the received ~~blocks~~ known pilot symbols,

wherein ~~said block consisting of said~~ known pilot symbols ~~of each slot~~ consists of a known pilot symbol portion and a sync word portion for frame alignment, the known pilot symbol portion and the sync word portion in each slot being aligned consecutively, and

wherein said means for carrying out coherent detection carries out the coherent detection using said known pilot symbol portion, and employs, after establishing the frame alignment using said sync word portion, said sync word portion for the coherent detection.

22. (Currently Amended) The receiver for a digital radio communication system as claimed in claim 21, wherein said known pilot symbols of each slot comprise multiple known pilot symbol portions and multiple sync word portions aligned consecutively, and wherein said known pilot symbol portions and said sync word portions are transmitted alternately in ~~said~~ each slot.

23. (Currently Amended) A digital radio communication method comprising the steps of:

transmitting, on a transmitting side, ~~a block consisting of a plurality of~~ known pilot symbols at every slot, a predetermined number of said slots forming a frame;

receiving, on a receiving side, ~~said blocks each consisting of said~~ known pilot symbols; and

carrying out coherent detection using the received ~~blocks;~~ known pilot symbols,

wherein ~~said block consisting of said~~ known pilot symbols of each slot consists of a known pilot symbol portion and a sync word portion for frame alignment, the known pilot symbol portion and the sync word portion in each slot being aligned consecutively, and

wherein said step of carrying out coherent detection carries out the coherent detection using said known pilot symbol portion, and employs, after establishing the frame alignment using said sync word portion, said sync word portion for the coherent detection.

24. (Currently Amended) The digital radio communication method as claimed in claim 23, wherein said known pilot symbols of each slot comprise multiple known pilot symbol portions and multiple sync word portions aligned consecutively, and wherein said known pilot symbol portions and said sync word portions are transmitted alternately in said block each slot.

25. (Currently Amended) A reception method for a digital radio communication method comprising the steps of:

receiving ~~a block consisting of a plurality of~~ known pilot symbols, which ~~[[has]]~~have been transmitted at every slot, a predetermined number of said slots forming a frame; and

carrying out coherent detection using the received ~~blocks;~~known pilot symbols,

wherein ~~said block consisting of said~~ known pilot symbols of each slot consists consist of a known pilot symbol portion and a sync word portion for frame alignment, the known pilot symbol portion and the sync word portion in each slot being aligned consecutively, and

wherein said step of carrying out coherent detection carries out the coherent detection using said known pilot symbol portion, and employs, after establishing the frame alignment using said sync word portion, said sync word portion for the coherent detection.

26. (Currently Amended) The reception method for a digital radio communication method as claimed in claim 25, wherein said known pilot symbols of each slot comprise multiple known pilot symbol portions and multiple sync word portions aligned consecutively, and wherein said known pilot symbol portions and said sync word portions are transmitted alternately in ~~said block~~each slot.